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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/777,261	02/05/2001	Edward E. Anderson	SUN1P807/P5231	3389

22434 7590 05/03/2004

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EXAMINER	
SIDDIQI, MOHAMMAD A	
ART UNIT	PAPER NUMBER
2154	8

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/777,261	ANDERSON ET AL.	
	Examiner	Art Unit	
	Mohammad A Siddiqi	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02/05/04*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-23 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kukura et al. (6633923) (hereinafter Kukura) in view of Petersen (x-kernel tutorial by Peterson, Davie and Bavier published on January 1996).

4. As per claims 1, 13, and 17, Kukura teaches a method of sending a message from a first common Object Request Broker to a second common Object Request Broker (col 2, lines 29-31) operating in a distributed object oriented environment (col 1, lines 15-27), said method comprising:

message is to be fragmented in two or more sub-messages (col 33, lines 10-20);

initializing an offset-variable to zero (col 34, lines 13-18) lines when said determining determines that said message is to be fragmented into two or more sub-messages (col 34, lines 8-21);

determining whether there is a need to know the position of a byte (col 40, lines 62-67) of the sub-message with respect to the message (col 38, lines 10-20);

reading the offset-variable when said determining determines that there is a need to know the position of a byte of the sub-message with respect to the message (col 37, lines 64-67 and col 38, lines 1-11, buffer contains bytes in sequence);

completing construction of the sub-message based on the offset-variable (col 38, lines 13-20);

sending a constructed sub-message (col 38, lines 13-20) from the first common Object Request Broker to a second common Object Request Broker (col 36, lines 1-5).

Kukura is silent about the steps determine, initializing an offset variable, reading the offset variable, initiating construction of a sub-message when said determining determines that said message is to be sent in two or more sub-messages, and updating the offset variable.

However, Peterson teaches determining whether the message is to be fragmented in two or more sub-messages (page 32,line 4);

initiating construction of a sub-message when said determining determines that said message is to be sent in two or more sub-messages (page 32, 10);

initializing an offset-variable (page 32, it can be assigned to zero) to zero lines when said determining determines that said message is to be fragmented into two or more sub-messages (page 32);

determining whether there is a need to know the position of a byte of the sub-message with respect to the message (page 31 and 32);

reading the offset-variable when said determining determines that there is a need to know the position of a byte of the sub-message with respect to the message (page 10);

completing construction of the sub-message based on the offset-variable (page 31 and 32);

updating the offset-variable (page 31 and 32);

Therefore, it would have been obvious to one to of ordinary skill in the art at the time of the invention to include offset variable to keep track the original message and fragmented message, because it provides flexible and robust data buffer management.

5. As per claims 2 and 18, Kukura teaches a sub-message has a header that includes one or more bytes (col 33, lines 17-25), and wherein said updating of the offset-variable comprises:

subtracting the length of the header of the sub-message from the length of another sub-message that was constructed immediately prior to construction of the sub-message (col 37, lines 23-31, addition and subtraction must be done to process the message based on the header and message size).

6. As per claims 3 and 19, Kukura teaches updating further comprises: updating the offset-variable by adding the result of said subtracting to the value of the offset-variable (col 38, lines 13-20);

7. As per claims 4, 10 and 14, Kukura teaches the message is fragmented into N sub-messages, sub-message 0 to sub-message N, where N is a positive integer, and wherein the first sub-message has a header with the same number of bytes as the header of the message (col 33, lines 17-25).

8. As per claim 5, Kukura teaches the updating is performed based on the summation (L.sub.i-1-H.sub.i) taken from i=1 to i=N-1, where L.sub.i is

the length of the sub-message i and H.sub.1 is the length header of the sub-message I (col 37, lines 23-31, addition and subtraction must be done to process the message based on the header and message size).

9. As per claims 6, 11, 15 and 20, Kukura teaches at least two of the headers of the sub-messages 1 to N can be of different lengths (col 34, lines 1-21, intermixed means capability of sending variable length data).

10. As per claim 7, Kukura teaches the method further comprises:
obtaining a remote object (col 2, lines 30-38); and

Invoking a method associated with the object (col 2, lines 45-49).

11. As per claim 8, Kukura teaches obtaining of the remote object (col 2, lines 30-38) and said invoking of a method (col 2, lines 45-49) associated with the object is performed by a client operating in the distributed object oriented environment (col 1, lines 15-27), and

wherein the first Object Request Broker creates a request and marshals in appropriate parameters (col 35, lines 65-67 and col 36, lines 1-5).

12. As per claim 9, Kukura teaches a computing system operating in a distributed object oriented environment (col 1, lines 15-34), said computing system comprising:

a first common Object Request Broker operating to send a message to a second common Object Request Broker (col 1, lines 59-64), said message being fragmented by the first common Object Request Broker into two or more sub-messages in a sequence (col 34, lines 8-21), and

a message fragment offset-variable provided for said common object request broker (col 34, lines 8-25), wherein the message fragment offset-variable indicates a the position of a byte of a sub-message (col 34, lines 8-21, obtaining a logical block) with respect to the message can be determined based on a said message fragment offset-variable (col 34, lines 8-21, beginblock can be assumed as an offset variable) by subtracting the length of the header of the sub-message from the length of another sub-message immediately preceding the sub-message (col 34, lines 8-21), and

Kukura is silent about then adding the result of the subtraction to the value of the message fragment offset-variable.

However, Peterson teaches adding the result of the subtraction to the value of the offset-variable (page 31-and 32).

Therefore, it would have been obvious to one to of ordinary skill in the art at the time of the invention to include offset variable to keep track the

original message and fragmented message, because it provides flexible and robust data buffer management.

13. As per claim 10, Kukura teaches the message is fragmented into N sub-messages, sub-message 0 to sub-message N, where N is a positive integer, and wherein the first sub-message has a header with the same number of bytes as the header of the message (col 33, lines 17-25).

14. As per claims 12, 16, and 21, Kukura teaches at least two of the sub-messages have data portions that are of different sizes (col 38, lines 9-14, buffers are allocated based on the method call).

15. As per claims 22, Kukura teaches a method of sending a message from a first common Object Request Broker to a second common Object Request Broker (col 2, lines 29-31) operating in a distributed object oriented environment (col 1, lines 15-27), said method comprising:

providing a message fragment offset variable for the first common Object Request Broker, wherein the message fragment offset-variable indicates an offset of the message (col 34, lines 8-21 and col 33, lines 17-25, buffer management);

sending a constructed sub-message (col 38, lines 13-20) from the first common Object Request Broker to a second common Object Request Broker (col 36, lines 1-5).

Kukura is silent about the determining whether the message is to be fragmented in two or more sub-messages;

initiating construction of a sub-message when said determining determines that said message is to be sent in two or more sub-messages;

completing construction of the sub-message based on the offset-variable (page 31 and 32);

However, Peterson teaches determining whether the message is to be fragmented in two or more sub-messages (page 32,line 4);

initiating construction of a sub-message when said determining determines that said message is to be sent in two or more sub-messages (page 32, 10);

completing construction of the sub-message based on the offset-variable (page 31 and 32);

Therefore, it would have been obvious to one to of ordinary skill in the art at the time of the invention was made to combine Kukura with Peterson to include messages fragmentation into sub-messages, because it would provide a flexible, and robust CORBA based middleware engine.

16. As per claim 23, Kukura discloses said method further comprises: updating the fragment offset-variable by subtracting the length of the header of the sub-message from the length of another sub-message that was constructed immediately prior to construction of the sub-message and adding the result of the subtraction to the value of the offset-variable (col 28, lines 36-49 and col 34, lines 4-29).

Response to Arguments

17. Applicant's arguments filed 02/25/04 have been fully considered but they are not persuasive:

18. In response to applicant's argument "Kukura et al. does **NOT** teach or suggest determining whether a message to be fragmented ", the examiner respectfully disagrees. The Kukura prior art teaches, message to be fragmented in two or more sub messages (col 33, lines 1-20, and col 12, lines 20-25 and col 32, lines 28-30), initializing an offset variable to zero (col 34, lines 13-38, BeginBlock), need to know position of the byte (col 40 lines 64-67 and col 41, lines 1-25, buffer is a array of bytes and buffer manipulation must be done), constructing and sending messages (col 38, lines 13-26, pre-message setting). Therefore, limitations are met by the reference.

19. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In this case, However, Peterson teaches determining whether the message is to be fragmented in two or more sub-messages (page 32,line 4);

initiating construction of a sub-message when said determining determines that said message is to be sent in two or more sub-messages (page 32, 10);

initializing an offset-variable (page 32, it can be assigned to zero) to zero lines when said determining determines that said message is to be fragmented into two or more sub-messages (page 32);

determining whether there is a need to know the position of a byte of the sub-message with respect to the message (page 31 and 32);

reading the offset-variable when said determining determines that there is a need to know the position of a byte of the sub-message with respect to the message (page 10);

completing construction of the sub-message based on the offset-variable (page 31 and 32);

updating the offset-variable (page 31 and 32);

Therefore, it would have been obvious to one to of ordinary skill in the art at the time of the invention to include offset variable to keep track the original message and fragmented message, because it provides flexible and robust data buffer management.

20. In response to Applicant's arguments **against the references individually**, one cannot show non-obviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller,* 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case Kukura teaches, message is to be fragmented in two or more sub-messages (col 33, lines 10-20);

initializing an offset-variable to zero lines when said determining determines that said message is to be fragmented into two or more sub-messages (col 34, lines 8-21);

determining whether there is a need to know the position of a byte of the sub-message with respect to the message (col 38, lines 10-20 and (col 40, lines 62-67);

reading the offset-variable when said determining determines that there is a need to know the position of a byte of the sub-message with respect to the message (col 37, lines 64-67 and col 38, lines 1-11, buffer contains bytes in sequence);

completing construction of the sub-message based on the offset-variable (col 38, lines 13-20);

sending a constructed sub-message from the first common Object Request Broker to a second common Object Request Broker (col 36, lines 1-5 and col 38, lines 13-20).

Kukura is silent about the steps determine, initializing an offset variable, reading the offset variable, initiating construction of a sub-message when said determining determines that said message is to be sent in two or more sub-messages, and updating the offset variable.

However, Peterson teaches determining whether the message is to be fragmented in two or more sub-messages (page 32,line 4);

initiating construction of a sub-message when said determining determines that said message is to be sent in two or more sub-messages (page 32, 10);

initializing an offset-variable (page 32, it can be assigned to zero) to zero lines when said determining determines that said message is to be fragmented into two or more sub-messages (page 32);

determining whether there is a need to know the position of a byte of the sub-message with respect to the message (page 31 and 32);

reading the offset-variable when said determining determines that there is a need to know the position of a byte of the sub-message with respect to the message (page 10);

completing construction of the sub-message based on the offset-variable (page 31 and 32);

updating the offset-variable (page 31 and 32);

Therefore, it would have been obvious to one to of ordinary skill in the art at the time of the invention to include offset variable to keep track the original message and fragmented message, because it provides flexible and robust data buffer management. Therefore, limitations are met by the references. Claim 1-21 stands rejected.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad A Siddiqi whose telephone number is (703) 305-0353. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is (703) 306-5404.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100